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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/513,687 | 02/25/2000 | Yong-Hoon Lee | 1316.1041/MDS | 7481 |

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EXAMINER

FERGUSON, LAWRENCE D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1774

11

DATE MAILED: 06/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/513,687

Applicant(s)

LEE ET AL.

Examiner

Lawrence D Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 0502.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Response to Amendment

1. This action is in response to the request for reconsideration mailed April 05, 2002. Claims 1, 5 and 24 were amended rendering claims 1-30 pending.

Claim Rejections – 35 USC § 103(a)

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honguh et al. (U.S. 5,776,574) for the reasons set forth in paragraph 6, in the previous office action, mailed January 15, 2002.

Claim Rejections – 35 USC § 102(b)

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated over Lee et al. (U.S. 5,470,627) for the reasons set forth in paragraph 8, in the previous office action, mailed January 15, 2002.

Claim Rejections – 35 USC § 103(a)

6. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. 5,470,627) for the reasons set forth in paragraph 9, in the previous office action, mailed January 15, 2002.

Response to Arguments

7. The 35 USC 112, second paragraph rejections have been overcome due to applicant's amendment of claim 5 for clarity and remarks concerning the "substantially" claim language. The term "substantially" is often used in conjunction with another term to describe a particular characteristic of the claimed invention. Although it is a broad term, In re Nehrenberg, 280 F.2d 161, 126 USPQ 383 (CCPA 1960), the court held that the limitation "which produces substantially equal E and H plane illumination patterns" was definite because one of ordinary skill in the art would know what was meant by "substantially equal." Andrew Corp. v. Gabriel Electronics, 847 F.2d 819, 6 USPQ2d 2010 (Fed. Cir. 1988).

Remarks in regard to the rejection under 35 USC 103(a) as being unpatentable

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over Honguh et al (U.S. 5,776,574) has been considered but deemed unpersuasive. Applicant argues the reference fails to address Applicants' micro-embossments protruding from a substrate as recited in Applicants' claim 1. As Applicant pointed out on page 5, lines 7-8 of the claimed disclosure, 'embossed hills protruding from the land surfaces which are used as a guide plane for tracking.' Figure 2 of Honguh shows a substrate having flat portions and embossed hills protruding from the land surfaces which are used as guide plane for tracking. Applicant argues that the tracking grooves of Honguh do not protrude from the lands but are cut into the substrate. This is not true because there is no teaching of the tracking grooves being cut into the substrate of Honguh. On the contrary, the hills are protruding from the land surfaces, which are in line with and used with the tracking grooves. Applicant further argues the rearrangement of the layers does not suggest the claimed micro-embossments and layers formed on the micro-embossments of the substrate. Examiner disagrees because the rearranged layers are all over the embossed substrate and do not alter the structure or properties of the embossed substrate. Applicant argues the reflective layer is not formed on the substrate. Although the reflective layer is not formed on the substrate, it can be rearranged to be formed directly over the substrate in a manner which does not alter the function of the optical disk.

Remarks in regard to the rejection under 35 USC 102(b) as being anticipated by Lee et al (U.S. 5,470,627) has been considered but deemed unpersuasive. Applicant argues the Examiner fails to address whether grooves of Lee protrude from the substrate and notes that the grooves of Lee are cut into the substrate and do not

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disclose the claimed micro-embossments protruding from the substrate due to them being cut into the substrate. This is not true because Figure 4 clearly shows the tracking grooves protruding from the substrate. Regardless of the direction the tracking grooves are directed towards, they are protruding from the substrate. There is no disclosure in Lee showing the grooves are 'cut' into the substrate. Applicant argues Lee shows a V shaped groove being cut into the substrate failing to show hills of a peaked hood shape. It is maintained that there is no disclosure of the groove being cut into the substrate and the 'V shaped' grooves meet the requirement of peaked shaped hills.

Remarks in regard to the rejection under 35 USC 103(a) as being anticipated by Lee et al (U.S. 5,470,627) has been considered but deemed unpersuasive. Applicant argues Lee does not disclose any structure corresponding to the Applicants' micro-embossments protruding from the substrate and having the peaked hood shape as claimed, therefore not teaching the thickness and height relating to the micro-embossments because the prior art is based on layers formed on the grooves cut into the substrate. This is not true because Figure 4 of Lee clearly shows the tracking grooves protruding from the substrate. Regardless of the direction the tracking grooves are directed towards, they are protruding from the substrate. There is no disclosure in Lee showing the grooves are 'cut' into the substrate. Furthermore, it is maintained that the 'V shaped' grooves meet the requirement of peaked shaped hills. Because Lee discloses micro-embossments protruding from the substrate having peaked shaped hills, the height of the peaked shape hills and grooves and the thickness of the layers

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formed on the micro-embossments would be obvious to one of ordinary skill in the art to optimize and arrive at the claimed invention.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is (703) 305-9978. The examiner can normally be reached on Monday through Friday 8:30 AM – 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. Please allow the examiner twenty-four hours to return your call.

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The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for

After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)

308-2351.

LDF

Lawrence D. Ferguson
Examiner
Art Unit 1774

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

Cynthia H. Kelly